Healthcare Facilities

High Risk and Expensive Consequences

There are many factors to consider when protecting a healthcare facility from fire:

- Presence of combustible products such as paper, plastics and linen
- Electrical equipment, power supplies and cabling near volatile gases and alcohol-based preparations
- Old or aging electrical cables
- Human error including smoking cigarettes

The hidden fuel load in a hospital is significant. Consider the distribution of bottled oxygen throughout the facility.

Consequences of Fire

- Life safety risks, especially for immobile and frail patients
- Loss of expensive medical equipment, drugs and facilities
- Service disruption and downtime causing immeasurable loss to the community

The cost, complexity and inconvenience of evacuating the elderly and frail is best avoided, especially in the event of a nuisance alarm.

Fire Detection Considerations

- Specialized areas such as MRI (magnetic resonance imaging) facilities are very sensitive to the presence of metallic and electronic components. Installation of only plastic pipes in the area reduces maintenance concerns.
- Roof spaces and ducts where a large amount of electrical cables, lighting, power, heating and cooling equipment are concealed
- Spread of potentially toxic smoke throughout the facility
- Critical interruption of clinical operations and care
- Cost, complexity and dangers of evacuation
- Cost of maintenance due to restricted access

## Why Use an Xtralis VESDA Air-sampling Smoke Detection (ASD) System?

Xtralis VESDA detectors buy time to respond to a fire threat, minimizing damage and maximizing the time available for a safe and orderly evacuation. The key advantages are:

- The high sensitivity of an Xtralis VESDA detector allows alarm thresholds to be set for the **earliest possible fire investigation and response** to avoid an evacuation.
- Multiple configurable alarms provide very early warning, allowing **time for investigation, security management** and subsequent warnings to initiate automated fire department **notification, evacuation and suppression**.
- **Disguised** and/or **tamper-proof** sampling avoids accidental damage and deters vandalism.
- The ability to locate sampling holes where smoke will travel and to position the detector in a remote location that has **easy access for maintenance**
- **Remote monitoring** and configuration of detectors improves control and cost of ownership in unmanned or secured areas.
- Xtralis VESDA systems maintain an event log, which allows analysis of smoke and detector response trends for **forensic incident analysis**.

A fire at a psychiatric hospital in North London in 2008 caused widespread panic among patients and up to £60 million in damage. It was the third major hospital fire in London that year.

Early Detection for Life Safety Assurance

Clearly the best time to detect a fire is at the incipient stage, the point where damage can be minimized and response options can be maximized.
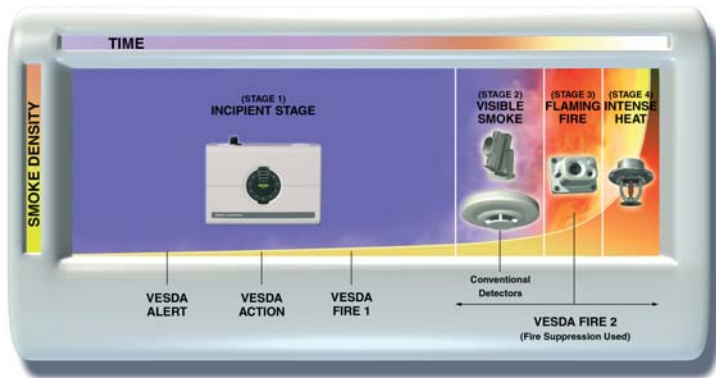

Xtralis VESDA uniquely monitors the entire progression of a fire — easily detecting smoke long before it is visible and long before any other form of smoke detection.

Reduced Cost of Nuisance Alarms

Having multiple alarm levels activated throughout the progression of a potential fire enables early investigation by facility staff. Their initial response can be at a low operational cost while the threat of fire remains low, reducing the cost of any potential nuisance alarms.

Tolerance and Reliability

VESDA systems are renowned for reliable operation in the high airflow, humidity and dust found in air-conditioning ducts, cable tunnels, elevator shafts, escalators and boiler rooms. Placing the detector outside the area to be protected reduces the cost of maintenance.
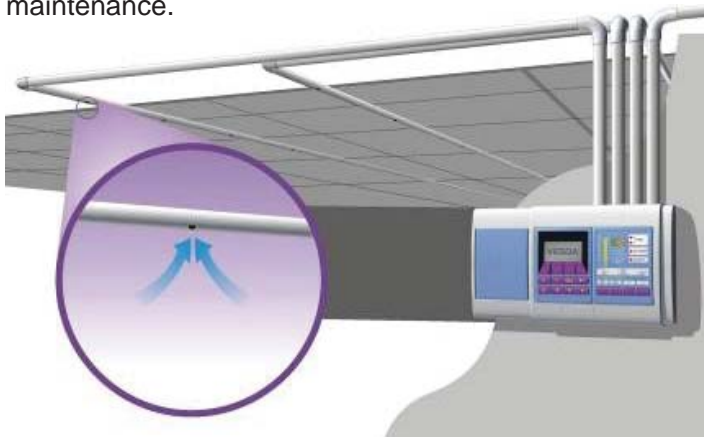
A centralized VESDA detector draws air through a simple pipe network installed in the ceiling space.

PROVEN APPLICATIONS

Operating rooms
Tolerant of wash-down procedures

MRI Facilities
Remote-sampling avoids fire service personnel and tools from being near equipment

Nuclear medicine and sterilization areas
High sensitivity ensures early warning and reduces contamination risks

General area and ward protection
Cost effective, open-area detection

Computer facilities
Sensitivity in these high-airflow areas protects patient records

Switch equipment, substation rooms and tunnels
Tolerance to environmental extremes and contamination

Atriums and large, open spaces
Cumulative sampling ensures detection of diluted smoke

Learn more about how Xtralis can help you

Xtralis provides powerful, early warning fire detection and integrated security solutions that identify threats before life, critical infrastructure or business continuity is compromised. The most respected business and top governments around the world rely on Xtralis to protect their personnel, assets and irreplaceable cultural and historic landmarks.

Xtralis is the inventor and pioneer of air-sampling smoke detection (ASD) technology, and Xtralis VESDA is the No. 1 ASD solution in the world.

VESDA detectors continuously sample air for even the smallest traces of smoke and provide valuable time to understand a threat and respond intelligently. These ASD solutions provide absolute detection in a wide range of environments -- from the dirtiest to the cleanest and from very small to large, open spaces. VESDA is the solution of choice for today's fire safety professionals.

- Very early detection to mitigate risk of business interruption and catastrophic loss
- 1,000 times more sensitive than traditional detectors
- Reliable and continuous operation in extreme conditions when traditional smoke detection fails
- Central detector location and powerful networking capabilities for the industry's lowest cost of ownership

Xtralis VESDA systems are designed to overcome the difficult challenges involved in protecting healthcare facilities.

Major Healthcare Facilities Protected by VESDA

New Cross Hospital, UK	Fujian People's Hospital, China	Hillcrest Hospital, Australia
St. Rose Hospital, USA	St. Joseph's Hospital, USA	Wollongong Hospital, Australia
Royal Melbourne Hospital, Australia	St. Vincent's Hospital, Australia	Hospital Virgen del Rocio, Spain
Cedar-Sinai Hospital, USA	United Hospital, USA	Bethany Healthcare, Canada

Need more information?

Contact our nearest office or visit our Web site at www.xtralis.com.

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